

ABSTRACT OF THE INVENTION

Methods of preventing air-liquid interfaces on the surface of a wafer in order to prevent the formation of particle defects on a wafer are presented. The air-liquid interfaces may be prevented by covering the entire surface of the wafer with liquid at all times during a cleaning process while the surface of the wafer is hydrophobic. Methods of preventing the formation of silica agglomerates in a liquid during a pH transition from an alkaline pH to a neutral pH are also presented, including minimizing the turbulence in the liquid solution and reducing the temperature of the liquid solution during the transition.